Granite State
COMMUNICATIONS™
reliable neighbors

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March 6, 2014

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554
Attn: Wireline Competition Bureau

Re: WC Docket No. 10-90
Rural Broadband Experiment Expression of Interest – Rate-of-Return Areas
Granite State Telephone

Dear Ms. Dortch:

Granite State Telephone hereby expresses interest in participating in the Commission's rural broadband experiments to provide robust, scalable high-speed broadband to underserved high-cost areas with additional Connect America funding.[1] Granite State Communications is a rate-of-return incumbent local exchange carrier serving rural areas of New Hampshire, and proposes deployment as follows.

Proposed Service Area
Granite State Telephone proposes to build out broadband to 1180 underserved premises within the regulated service territory.

Proposed Broadband Service
Voice and Broadband services with broadband transmission speeds of 15 Mbps downstream / 3 Mbps upstream provided over Fiber-to-the-Premises (FTTP) technology.

Funding
Granite State Telephone estimates construction and engineering costs to be a total of $1,225,000. Granite State Telephone requests $1,155,000 in funding from Connect America Funds in a one-time funding and will fund the remaining capital and ongoing expenses to operate the system.

Please see the attached document for more detailed information.

Granite State Telephone expects service to be offered to all unserved customers within 12 months after construction starts.

Granite State Telephone appreciates the opportunity to provide this non-binding expression of interest. Please contact the undersigned with any questions.

Sincerely,

Susan Rand King

Susan Rand King
President

SRK/wws

Enclosures

[1] *See Technology Transitions et al.*, GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 2014).

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Background

Granite State Telephone (GST) is an Incumbent Local Exchange Carrier (ILEC), based in Southern New Hampshire. In aggregate, the GST operating territory consists of 187.6 square miles and contains 10,804 premises. GST currently provides voice service to approximately 7,000 customers, and high-speed Internet access to about 2,800 customers within its operating territory.

The GST territory is divided into 4 exchanges, the more populous being Chester and Weare. These exchanges are noncontiguous and contain 4,252 and 4,320 premises respectively. The 2 remaining exchanges of Hillsboro Upper Village (HUV) and Washington, while contiguous, are far less populous, containing 960 and 1,272 premises respectively.

The population densities of the Chester, Weare and HUV Exchanges are 180, 150 and 67 people per square mile respectively. Washington is the least dense, with just 24 people per square mile.

Geographic Territory

While the terrain of each exchange varies to some degree, the operating territory is primarily hilly with several freshwater ponds and small lakes. Along with being the most remote, the Washington Exchange is also the most rugged.

Anchor Institutions

The GST customer base is mostly residential, with some small businesses. Additionally, GST serves several rural schools, libraries, town halls, police and fire departments.

Existing Network Design

Each of the 4 exchanges is served by a standalone soft switch placed in service in 2007. The individual exchanges are also divided into a varying number of Carrier Serving Areas (CSA), containing Digital Loop Carrier (DLC) devices that are enclosed in outside plant cabinets, which were installed in the 1990s. Nearly all of these cabinets contain Digital Subscriber Line Access Multiplexers (DSLAM) units, which are used to provide high-speed Internet service to customers over the twisted pair copper cable network.

GSC began deploying Internet access capability to its customer base in the late 1990s. At present approximately 65% of the company's high-speed Internet customers are provided service through DSLAMs installed either in an exchange switching center, or in the above mentioned field cabinets. The remaining high-speed Internet customers are served by the GST fiber-to-the-premises (FTTP) network, an explanation of which follows.

The DSLAMs are capable of providing varying levels of bandwidth to GST customers, depending on their proximity to the unit. Due to the deployment of these units in outside plant cabinets, it is estimated that GST is able to provide broadband transmission speeds of 3mb/s downstream and 768kb/s upstream to a majority of its customers. However, speeds in excess of that (e.g., 4mb/s downstream and 1mb/s upstream) are available to a much smaller number of GST subscribers.

For the most part, the DSLAMs are of early ADSL vintage and are increasingly more unreliable and costly to maintain. This is especially the case with those deployed in field cabinets.

GST has long been an industry leader in New England for the deployment of new technologies, which provide service levels that meet or exceed their customer's expectations. Faced with the advent of new bandwidth hungry services, GST decided to further modernize its networks by overbuilding the existing primarily aerial copper cable plant with an active Ethernet Fiber-to-the-Premises (FTTP) network.

Planning and initial engineering for this initiative began in 2007, followed by the commencement of construction in 2008. An active Ethernet architecture was selected because of its virtually unlimited scalability, as customer and services bandwidth demands increase. To date GST has almost exclusively utilized company employees for the engineering and construction of the network. Moreover, GST has thus far self funded the entire initiative.

When a GST customer's service is converted from the Copper to the FTTP network they are automatically provided with broadband transmission speeds of 15 Mb/s downstream and 3 Mb/s upstream, with no increase in their monthly rate. Beyond that, FTTP customers can purchase greater bandwidth transmission speeds for a nominal fee increase.

For a variety of reasons GST began the FTTP network deployment in the more populous Weare and Chester Exchanges. Network construction in these exchanges is currently targeted for completion in 2018 and 2019 respectively. Therefore, FTTP network deployment in the HUV and Washington Exchanges will not commence until approximately 2019, with completion of construction in the Washington Exchange currently targeted for late 2022. In the meantime, customers in the non-fiber served Washington Exchange continue to have the same bandwidth availability limitations they have today.

Proposed Technology

While GST operates in a rural environment, it does compete for high-speed Internet customers with a major cable TV provider in most areas of the operating territory.

However, GST is currently the only provider of high-speed Internet service in the Washington Exchange. Additionally, those residing in the Washington Exchange have no alternate service provider available to them, including the lack of a wireless substitute service. Moreover, GST is already receiving requests for bandwidth speeds greater than 3mb/s downstream and 768kb/s upstream from some customers in the Washington Exchange, which GST is not able to accommodate due to the cost to replace long copper loop lengths. This creates a situation where the inhabitants of the Washington Exchange reside in an underserved area.

Accordingly, GST submits this expression of interest to the Federal Communications Commission (FCC) with the intension of accelerating the FTTP deployment in the Washington Exchange from 2021 to 2015. This experiment would consist of the installation of approximately 19 miles of aerial support strand, as well as the placement and splicing of approximately 76 miles of aerial fiber optic cable. It is forecasted that, if engineering began early in 1Q15, construction would be completed and service made available to customers by the end of 2015.

As stated in the attached letter, GST estimates that this construction will cost approximately $1,225,000. By accelerating this project, GST would continue to conduct all engineering in-house, but would utilize contractor labor to construct the network.

Accelerating FTTP deployment as expressed would allow GST to continue deploying bandwidth enhancements in the remaining exchanges per the existing schedule. This would result in 75% of the premises in the entire GST operating territory having the availability of broadband transmission speeds of at least 15 Mb/s downstream and 3 Mb/s upstream by the end of 2015. Subsequently, all remaining premises in the operating territory would have this level of service available no later than yearend 2020.

As a result, GST requests consideration for $1,155,000 of funding from Connect America Funds, to cover the expense of the materials and contract labor to construct FTTP in the Washington Exchange. GST will then cover the engineering expense on the project.